THE EFFECT OF SILVER NITRATE NANOPARTICLE SOLUTION AS AN ANTIVIRAL ON *AVIAN INFLUENZA (H5N1)* VIRUS IN EMBRYONATED CHICKEN EGGS

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ABSTRACT

This research was conducted to find out the effect of silver nitrate nanoparticle solution to inhibit replication process of Avian Influenza (H5N1) Virus in embryonated chicken eggs using two groups of treatment (first treatment: viruses and silver nitrate nanoparticles at 20ppm dose were inoculated in ECE and second treatment : viruses and silver nitrate nanoparticles at 50ppm dose were inoculated in ECE, both of treatment were inoculated for 4 days). The method used for synthesized silver nitrate nanoparticle by chemical reduction using tri sodium citrate as reductor and silver nitrate as precursor. The dosage of silver nitrate nanoparticle in this research were 0 ppm (control), 20 ppm, and 50 ppm. The result of Inhibition between two procedures was analyzed used Probit test to know the most effective dose to reduce virus titer. The result showed that there was no significant different between two treatment (20ppm and 50ppm). The optimum effect of silver nitrate nanoparticle solution to inhibit replication process was 20 ppm compared to the control.

Keywords : Avian Influenza (H5N1) Virus, silver nitrate nanoparticle, embryonated chicken eggs, virus titer